



USDA Foreign Agricultural Service

GAIN Report

Global Agriculture Information Network

Voluntary Report - public distribution

Date: 5/6/2003

GAIN Report Number: CH3059

China, Peoples Republic of

FAIRS Product Specific

Edible Alcohols

2003

Approved by:

Larry M. Senger
U.S. Embassy

Prepared by:

Adam Branson, James Butterworth, Wu Bugang

Report Highlights:

This is an UNOFFICIAL translation of the People's Republic of China Standard for Edible Alcohol (GB10343-2002) and should be used as a guide only. Exporters should carefully discuss regulations and their application with Chinese improters to ensure that their interpretation is accurate.

Includes PSD Changes: No
Includes Trade Matrix: No
Unscheduled Report
Beijing [CH1]
[CH]

This report was prepared by the Office of Agricultural Affairs of the USDA/Foreign Agricultural Service in Beijing, People's Republic of China. While every possible care was taken in the preparation of this report, information provided may not be completely accurate either because policies have changed since its preparation, or because clear and consistent information about these policies was not available. It is highly recommended that U.S. exporters verify the full set of import requirements with their foreign customers, who are normally best equipped to research such matters with local authorities, before any goods are shipped. FINAL IMPORT APPROVAL OF ANY PRODUCT IS SUBJECT TO THE IMPORTING COUNTRY'S RULES AND REGULATIONS AS INTERPRETED BY BORDER OFFICIALS AT THE TIME OF PRODUCT ENTRY.

Introduction

The Ministry of Health published the National Standard for Edible Alcohol in the China Food Newspaper on February 13, 2003. The following is a translation of the announcement that appeared in the paper. The prior Standard for Edible Alcohol, from 1989, is not available for comparison.

BEGIN TRANSLATION

National Standard of Edible Alcohol GB 10343-2002 will substitute GB10343-1989

1. Scope

This Standard stipulates technical requirement, testing methods, inspection regulations, and requirements for labeling, packaging, transportation and storage of edible alcohol. This Standard applies to aqueous alcohol (i.e., alcohol used in the food industry) that is made from the raw materials of cereal grains, tuber crops, or molasses and is produced through fermentation and distillation.

2. Referenced Documents

The clauses in the below Standards, though referenced in this standard, have become clauses of this standard. All listed documents are applicable at the time of publication of this standard. However, all standards are subject to modification and the parties that apply this standard should study the possibility of using the recent versions of the following standards.

GB 190-1990 Packing Marks of Dangerous Cargo

GB 191-2000 Graphic Marks for Packaging and Transportation

GB/T 394.1-1994 Industrial Alcohol

GB/T 394.2-1994 Current Test Methods of Alcohol

GB/T 668.2-1992 Laboratory Water Specifications and Inspection Methods (neq ISO 3696; 1987)

3. Technical requirement

3.1 Sensory requirement

The following requirements listed in Table 1 should be met:

Table 1

Item	Superfine	Fine	Common
Appearance	Colorless and transparent		
Odor	With the natural fragrance of alcohol, no foreign odor		No foreign odor
Taste	Pure and slightly sweet	Pure and slightly sweet	Relatively pure

3.2 Physical and chemical requirement

The following requirements listed in Table 2 should be met:

Table 2

Item	Superfine	Fine	Common
Colority (No.) ≤	10		
Alcohol/% (v/v) ≥	96.0	95.5	95.0
Sulfuric acid test (No.) ≥	5	10	60
Oxidation time (min.) ≤	40	30	20
Aldehyde (as acetaldehyde) (mg/l) ≥	1	3	30
Methanol (mg/l) ≤	2	50	150
n-propyl alcohol (mg/l) ≤	2	35	100
Isobutanol + isoamylol (mg/l) ≤	1	2	30
Acid (as acetic acid) (mg/l) ≤	7	10	20
Ester (as acetic ether) (mg/l) ≤	10	18	25
Nonvolatile matter (mg/l) ≤	10	20	25
Heavy metal (as Pb) (mg/l) ≤	1		
Cyanide (as HCN) ¹⁾ (mg/l) ≤	5		
1) refers to the product using cassava as raw material			

4. Inspection methods

4.1 Sensory requirement

4.1.1 Appearance and odor

To be inspected and evaluated as per clauses 4.1 and 4.3 in GB/T 394.2-1994

4.1.2 Taste evaluation

Draw a sample of 20 ml into a 50 ml volumetric flask, add 30 ml of water (according to Grade III, GB/T 6682). Shake and put the flask in a water bath at 20 degrees Centigrade, then pour the flask into a 100 ml beaker. Taste and evaluate the liquid and record the results.

4.2 Physical and chemical requirement

Color, alcohol, sulfuric acid, oxidation time, and aldehyde (as acetaldehyde) should be tested in accordance with 4.2, 4.4-4.7 in GB/T 394.2-1994 respectively.

Acid (as acetic acid), ester (as acetic ether), nonvolatile matter, heavy metals and cyanide should be tested in accordance with 4.10-4.14 in GB/T 394.2-1994 respectively.

Methanol, n-propyl alcohol, isobutanol and isoamylol should be tested in accordance with method A (i.e., Capillary Gas Chromatography) listed under clause 4.8.1 in GB/T 394.2-1994 as those required for the testing of superfine edible alcohol:

High sensitive gas chromatograph and capillary chromatographic columns are required for the test, in order to allow methanol (with a content less than 2 mg), n-propyl alcohol, isobutanol and isoamylol (with a content less than 1 mg respectively) to be detected. Other types of capillary chromatographic columns with equivalent analysis effects can also be used in the test, also.

While preparing the internal standard (n-butyl alcohol) and methanol, n-propyl alcohol, isobutanol and isoamylol as standard solutions, in the reference alcohol. Selected as the solvent (i.e., none of the tested components of the alcohol can be detected) the contents of the alcohol should match with the contents of the tested components in the sample as far as possible.

Furthermore, standard addition method (method of addition) can be used for the verification. Draw 4 samples of the same volume into 4 volumetric flasks each of 10 ml. Sample 1 shall not be added to the standard solution of the tested components. Samples 2, 3, and 4 shall be added with a proportional volume of the standard solution. Then using the same sample to obtain a constant volume and determined under specified chromatographic process. The concentrations of the added standard solution will be taken as the X-axis, and the corresponding peak area (or peak height) as the Y-axis to draw the standard curve. Extend the curve to intersect with the X-axis, and the point of intersection will be the content of the composition contained in the sample. The concentration of the standard solution added in Sample 2 shall be 10 times the detection limit of the tested components.

Tolerance of the result: If the content of each component is within the range of 6 mg/l to 10 mg/l, then the difference of the two determinations should not exceed 20% of the average value, if the content of each component is within the range of 5 mg/l to 1 mg/l, then the difference of the two determinations should not exceed 50% of the average value.

5. Inspection Regulations

5.1 The product will be inspected and accepted lot by lot. A tank or a tank car will be deemed as a lot if the product is filled in tanks or tank cars. The product that is packed and leaves the factory at the same time and has been issued a quality certificate shall be deemed as the product of the same lot.

5.2 Sampling

The method and quantity of sampling should conform with clause 6.2 in GB/T 394.1-1994.

5.3 Inspection and Classification

5.3.1 Ex-work inspection

5.3.1.1 Before leaving the factory, the product should be inspected lot by lot by the quality inspection department of the factory based on the regulations in this Standard. Only qualified product that is issued a quality certificate can leave the factory for sale.

5.3.1.2 Ex-work inspection items

Sensory inspection, alcohol, sulfuric acid test, oxidation time, acid, aldehyde, methanol, n-propyl alcohol, isobutanol and isoamylol contents

5.3.2 Property inspection

5.3.2.1 Items

All items listed under clauses 3.1 and 3.2 of the present standard should be inspected.

5.3.2.2 Property inspection shall be carried out every half year. However, it will also be carried out if one of the following occurs:

- raw and auxiliary materials are changed extensively;
- production is restored after equipment or units are replaced or shut-down;
- results from the most recent ex-work inspection vary greatly with that of the last property inspection;
- sample survey is required by the national quality supervision and inspection authority.

5.4 Decision regulations

5.4.1 If one inspection item is found out of compliance with the present Standard, a second inspection shall be taken using a sample from the same inspection lot but the sample will be double in quantity the original amount. The result of the second inspection shall be the reference of inspection. If there is still an index item that does not comply with the

requirements after the second inspection, then the product lot shall be deemed an off-quality product.

5.4.2 The decision regulations of property inspection will be the same of that of ex-work inspection.

6. Labeling, packaging, transportation and storage

6.1 Labeling

6.1.1 The packaging label should be marked with the product name ("Edible Alcohol"), raw materials, alcohol volume, manufacturer and its address, date of packaging, net weight, standard number, and quality grade.

6.1.2 Tanks or tank cars storing edible alcohol should be marked with "Edible Alcohol", manufacturer, and net weight. The quality certificate of the product shall go with the tank or tank car.

6.1.3 The labels of dangerous cargo and the graphic marks for packaging and transportation should meet the requirements of GB 190 and GB 191.

6.2 Packaging

6.2.1 The packaging material and container should meet the requirement of food health. Tanks, tank cars and barrels dedicated for edible alcohol storage and transportation shall be used. Aluminum barrels or zinc galvanized container packages are not allowed. Before packaging, the containers shall be inspected for safety and health.

6.2.2 Tanks or tank cars filled with product should be tightly closed with a lead seal. While receiving the goods, the buyer should first check the lead seal then carry out the quantity and quality inspection of the product.

6.2.3 The outside appearance of the packaging material should be clean. The marks on the label should be legible and the label should stick on the container.

6.3 Transportation

6.3.1 The vehicles for transportation should be clean and hygienic. The vehicles cannot transport toxic, harmful, corrosive, or noxious material with the product.

6.3.2 The cargo shall be handled with care and be kept away from heat source and flammable materials. Throwing, dropping, impacting, etc. are prohibited.

6.3.3 The cargo should be protected from fire, explosion, static electricity, thunder and lightning and from being under the sun during transportation.

6.4 Storage

6.4.1 The product should not be stored with toxic, harmful, corrosive, or noxious materials.

6.4.2 The product should be stored in a cool, dry, and ventilated environment. Facilities protecting from high temperature, flammable materials, and static electricity should be available. A caution sign of "No Flammable Materials" shall be available in the storage area.

END TRANSLATION